Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

AMENDMENTS TO THE CLAIMS

Please **REWRITE** claims 1, 5, 11, 15, 21–31, 35, and 41–42. For the Examiner's convenience, this Amendment includes the text of all claims under examination, a parenthetical expression for each claim to indicate the status of the claim, and markings to show changes relative to the immediate prior version of each currently amended claim.

1.   (Currently Amended) A method for calculating a cost of receiving multicast data from a

selected multicast session, a multicast network including at least one multicast service, each

multicast service including at least one multicast session, comprising:

receiving a request to establish a connection to the selected multicast session, the request

including a start time for the connection and an end time for the connection;

storing the start time for the connection and the end time for the connection; and

after termination of the connection, calculating the cost of receiving the multicast data,

wherein the multicast network utilizes a multicast protocol, and

wherein when a selected multicast service that includes the selected multicast session

receives a multicast message from a sender, the multicast protocol sends the

multicast message to said at least one multicast session associated with the selected

multicast service.

2.   (Original) The method of claim 1, further comprising:

receiving a subsequent request to extend the connection, the subsequent request specifying a

new end time for the connection; and

storing the new end time for the connection.

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

3.   (Original) The method of claim 1, further comprising:

receiving a subsequent request to terminate the connection, the subsequent request

specifying a new end time that precedes the end time for the connection; and

storing the new end time for the connection.

4.   (Original) The method of claim 1, wherein the storing of the start time for the connection

and the end time for the connection is to a database.

5.   (Currently Amended) The method of claim 1, wherein the calculating of the cost further

comprises:

computing a charge for receiving the multicast data;

storing the charge; and

computing the cost by multiplying the charge by a fee for the multicast service associated

with the selected multicast session.

6.   (Original) The method of claim 5, wherein the computing of the charge further comprises:

computing an elapsed connection time by subtracting the start time for the connection from

the end time for the connection.

7.   (Original) The method of claim 5, wherein the computing of the charge further comprises:

computing a volume of data received over the connection from the start time for the

connection to the end time for the connection.

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

8.　　(Original) The method of claim 5, wherein the storing of the charge is to a database.

9.　　(Original) The method of claim 1, wherein time is divided into evenly spaced time slots, and wherein the start time for the connection the end time for the connection can only occur at the end of a time slot.

10.　　(Original) The method of claim 9, wherein the end time for the connection in the request is specified as a discrete number of time slots.

11.　　(Currently Amended) A system for calculating a cost of receiving multicast data from a selected multicast session, a multicast network including at least one multicast service, each multicast service including at least one multicast session, comprising:

a memory device; and

a processor disposed in communication with the memory device, the processor configured to:

receive a request to establish a connection to the selected multicast session, the request including a start time for the connection and an end time for the connection;

store the start time for the connection and the end time for the connection; and

after termination of the connection, calculate the cost of receiving the multicast data, wherein the multicast network utilizes a multicast protocol, and

wherein when a selected multicast service that includes the selected multicast

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

session receives a multicast message from a sender, the multicast protocol

sends the multicast message to said at least one multicast session associated

with the selected multicast service.

12.   (Original) The system of claim 11, wherein the processor is further configured to:

receive a subsequent request to extend the connection, the subsequent request specifying a

    new end time for the connection; and

store the new end time for the connection.

13.   (Original) The system of claim 11, wherein the processor is further configured to:

receive a subsequent request to terminate the connection, the subsequent request specifying

    a new end time that precedes the end time for the connection; and

store the new end time for the connection.

14.   (Original) The system of claim 11, wherein the processor stores the start time for the

connection and the end time for the connection to a database.

15.   (Currently Amended) The system of claim 11, wherein to calculate the cost, the processor is

further configured to:

compute a charge for receiving the multicast data;

store the charge; and

compute the cost by multiplying the charge by a fee for the multicast service associated with

    the selected multicast session.

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

16.   (Original) The system of claim 15, wherein to compute the charge, the processor is further

configured to:

compute an elapsed connection time by subtracting the start time for the connection from

the end time for the connection.

17.   (Original) The system of claim 15, wherein to compute the charge, the processor is further

configured to:

compute a volume of data received over the connection from the start time for the

connection to the end time for the connection.

18.   (Original) The system of claim 15, wherein the processor stores the charge to a database.

19.   (Original) The system of claim 11, wherein time is divided into evenly spaced time slots,

and wherein the start time for the connection the end time for the connection can only occur

at the end of a time slot.

20.   (Original) The system of claim 19, wherein the end time for the connection in the request is

specified as a discrete number of time slots.

21.   (Currently Amended) A computer program product comprising a computer useable medium

having computer program logic recorded thereon for calculating a cost of receiving

multicast data from a selected multicast session, a multicast network including at least one

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

multicast service, each multicast service including at least one multicast session, the

computer program logic comprising:

a computer readable medium;

program code in said computer readable medium for receiving a request to establish a

connection to the selected multicast session, the request including a start time for the

connection and an end time for the connection;

program code in said computer readable medium for storing the start time for the connection

and the end time for the connection; and

after termination of the connection, program code in said computer readable medium for

calculating the cost of receiving the multicast data,

wherein the multicast network utilizes a multicast protocol, and

wherein when a selected multicast service that includes the selected multicast session

receives a multicast message from a sender, the multicast protocol sends the

multicast message to said at least one multicast session associated with the selected

multicast service.

22.   (Currently Amended) The computer program product readable medium of claim 21, the

computer program logic further comprising:

program code in said computer readable medium for receiving a subsequent request to

extend the connection, the subsequent request specifying a new end time for the

connection; and

program code in said computer readable medium for storing the new end time for the

connection.

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

23. (Currently Amended) The computer program product ~~readable medium~~ of claim 21, the

computer program logic further comprising:

program code ~~in said computer readable medium~~ for receiving a subsequent request to

terminate the connection, the subsequent request specifying a new end time that

precedes the end time for the connection; and

program code ~~in said computer readable medium~~ for storing the new end time for the

connection.

24. (Currently Amended) The computer program product ~~readable medium~~ of claim 21,

wherein the storing of the start time for the connection and the end time for the connection is

to a database.

25. (Currently Amended) The computer program product ~~readable medium~~ of claim 21,

wherein the program code ~~in said computer readable medium~~ for calculating the cost further

comprises:

program code ~~in said computer readable medium~~ for computing a charge for receiving the

multicast data;

program code ~~in said computer readable medium~~ for storing the charge; and

program code ~~in said computer readable medium~~ for computing the cost by multiplying the

charge by a fee for the multicast service associated with the selected multicast

session.

26.   (Currently Amended) The computer program product ~~readable medium~~ of claim 25,

wherein the program code ~~in said computer readable medium~~ for computing the charge

further comprises:

program code ~~in said computer readable medium~~ for computing an elapsed connection time

by subtracting the start time for the connection from the end time for the connection.

27.   (Currently Amended) The computer program product ~~readable medium~~ of claim 25,

wherein the program code ~~in said computer readable medium~~ for computing the charge

further comprises:

program code ~~in said computer readable medium~~ for computing a volume of data received

over the connection from the start time for the connection to the end time for the

connection.

28.   (Currently Amended) The computer program product ~~readable medium~~ of claim 25,

wherein the storing of the charge is to a database.

29.   (Currently Amended) The computer program product ~~readable medium~~ of claim 21,

wherein time is divided into evenly spaced time slots, and wherein the start time for the

connection the end time for the connection can only occur at the end of a time slot.

30.   (Currently Amended) The computer program product ~~readable medium~~ of claim 29,

wherein the end time for the connection in the request is specified as a discrete number of

time slots.

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

31.   (Currently Amended) A system for calculating a cost of receiving multicast data from a

selected multicast session, a multicast network including at least one multicast service, each

multicast service including at least one multicast session, comprising:

a collection device comprising:

   a collection memory device; and

   a collection processor disposed in communication with the collection memory

      device, the collection processor configured to:

      receive a request to establish a connection to the selected multicast session,

         the request including a start time for the connection and an end time

         for the connection;

      store the start time for the connection and the end time for the connection;

         and

      after termination of the connection, calculate the cost of receiving the

         multicast data,

      wherein the multicast network utilizes a multicast protocol, and

      wherein when a selected multicast service that includes the selected

         multicast session receives a multicast message from a sender, the

         multicast protocol sends the multicast message to said at least one

         multicast session associated with the selected multicast service; and

an interface device comprising:

   an interface memory device; and

   an interface processor disposed in communication with the interface memory device,

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

the interface processor configured to:

configure the collection device; and

display the cost of receiving the multicast data.

32.   (Original) The system of claim 31, wherein the collection processor is further configured to:

receive a subsequent request to extend the connection that specifies a new end time for the

connection; and

store the new end time for the connection

33.   (Original) The system of claim 31, wherein the collection processor is further configured to:

receive a subsequent request to terminate the connection that specifies a new end time for

the connection; and

store the new end time for the connection.

34.   (Original) The system of claim 31, wherein the collection processor stores the start time for

the connection and the end time for the connection to a database.

35.   (Currently Amended) The system of claim 31, wherein to calculate the cost, the collection

processor is further configured to:

compute a charge for receiving the multicast data;

store the charge; and

compute the cost by multiplying the charge by a fee for the multicast service associated with

the selected multicast session.

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

36.   (Original) The system of claim 35, wherein to compute the charge, the collection processor

is further configured to:

compute an elapsed connection time by subtracting the start time for the connection from

the end time for the connection.

37.   (Original) The system of claim 35, wherein to compute the charge, the collection processor

is further configured to:

compute a volume of data received over the connection from the start time for the

connection to the end time for the connection.

38.   (Original) The system of claim 35, wherein the collection processor stores the charge to a

database.

39.   (Original) The system of claim 31, wherein time is divided into evenly spaced time slots,

and wherein the start time for the connection the end time for the connection can only occur

at the end of a time slot.

40.   (Original) The system of claim 39, wherein the end time for the connection in the request is

specified as a discrete number of time slots.

41.   (Currently Amended) <u>A computer program product comprising a computer useable medium</u>

<u>having computer program logic recorded thereon</u> ~~An apparatus~~ for calculating a cost of

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

receiving multicast data from a <u>selected</u> multicast session, a multicast network including at

least one multicast service, each multicast service including at least one multicast session,

<u>the computer program logic</u> comprising:

~~a computer-readable readable medium;~~

program code ~~in said computer-readable medium~~ for sending a request to establish a

connection to the <u>selected</u> multicast session, the request including a start time for the

connection and an end time for the connection;

program code ~~in said computer-readable medium~~ for sending a first subsequent request after

the request, the first subsequent request including a new end time for the connection,

the new end time being later than the end time; and

program code ~~in said computer-readable medium~~ for sending a second subsequent request

after the first subsequent request, the second subsequent request including an earlier

end time for the connection, the earlier end time after the end time and before the

new end time,

<u>wherein the multicast network utilizes a multicast protocol, and</u>

<u>wherein when a selected multicast service that includes the selected multicast session</u>

<u>receives a multicast message from a sender, the multicast protocol sends the</u>

<u>multicast message to said at least one multicast session associated with the selected</u>

<u>multicast service.</u>

42.   (Currently Amended) The <u>computer program product</u> ~~apparatus~~ of claim 41, <u>the computer</u>

<u>program logic</u> further comprising:

program code ~~in said computer-readable medium~~ for determining a request time interval;

47198 v1

Application Serial Number: 10/077,780
1.111 Amendment dated January 16, 2004
Reply to Office Action dated September 16, 2003

Attorney Docket Number: 4208-4063

wherein sending the request, sending the first subsequent request, and sending the second

subsequent request only occur at a time that is a multiple of the request time interval

from the start time.

47198 v1